

ABSTRACT

A pattern measuring apparatus includes: a storage device which stores a plurality of pattern images of a pattern to be measured and edge reference data which is used as reference to detect the edge of the pattern within  
5 the pattern images and is configured of a plurality of pixels that are disposed so as to have an intensity gradient, the pattern images being obtained by an external imaging device at different focal distances; a calculator which scans the pattern image with the edge reference data,  
10 detects edge points of the pattern, and also calculates a characteristic quantity that expresses a correlation between the edge reference data and the detected edge points of the pattern; a determinator which determines an in-focus state that expresses the degree to which the focal  
15 position at which each pattern image is obtained conforms to a desired pattern edge, based on the calculated characteristic quantity; an image selector which selects the pattern image that conforms to measurement of the pattern from a plurality of the pattern images, in  
20 accordance with the determination result of the in-focus state determinator; and a measurer which processes the selected pattern image to measure the pattern.